

Docket No.: 700157/50007-C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Engelman et al.

SERIAL NO.: 09/990,879

FILED: November 21, 2001

FOR: EPISOMALLY REPLICATING LENTIVIRAL VECTORS

EXAMINER:

GROUP: 1642

0300
Box Sequence
#12/c
Lita
1-14-03

CERTIFICATE OF MAILING (37 C.F.R. SECTION 1.8(a))

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Date:

6/3/02

Patricia W. Turner

(type or print name of person mailing paper)

Patricia W. Turner

Signature of person mailing paper

Assistant Commissioner for Patents
Washington, D.C. 20231

AMENDMENT UNDER C.F.R. § 1.825

In the response to the Notice to Comply with the Sequence Listing Requirements mailed April 3, 2002, a copy of which is attached hereto, Applicants enclose herewith a computer readable form and a paper copy of the "Sequence Listing" and a statement that the content of the paper and computer readable copies are the same.

Please insert the attached sequence listing into the application.

The Commissioner is hereby authorized to charge any additional fees associated with this communication to Deposit Account No. 50-0850.

Date:

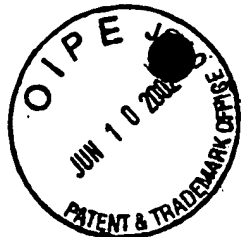
6/3/02

Respectfully submitted,

David S. Resnick

David S. Resnick, Reg. No. 34,235
NIXON PEABODY LLP
101 Federal Street
Boston, MA 02110
(617) 345-6057

Customer No. 26248



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Assistant Commissioner for Patents
Washington, D.C. 20231

**SUBMISSION OF "SEQUENCE LISTING," COMPUTER READABLE
COPY, AND/OR AMENDMENT PERTAINING THERETO
FOR BIOTECHNOLOGY INVENTION CONTAINING NUCLEOTIDE
AND/OR AMINO ACID SEQUENCE**

IDENTIFICATION OF PERSON MAKING STATEMENT

1. I, David S. Resnick, state the following:

ITEMS BEING SUBMITTED

2. Submitted herewith is/are:

A copy of each "Sequence Listing" submitted for this application in computer readable form, in accordance with the requirements of 37 C.F.R. §§ 1.821(e) and 1.824.

A statement that the content of each "Sequence Listing" submitted and each computer readable copy are the same, as required in 37 C.F.R. § 1.821(g).

Because this submission is made in fulfilling the requirement under 37 C.F.R. § 1.821(g), a statement that the submission includes no new matter.

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. SECTION 1.8a)

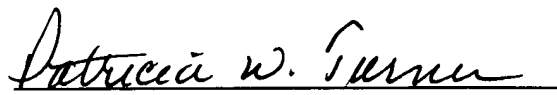
I hereby certify that this correspondence is, on the date shown below, being:

MAILING

- ☒ deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

FACSIMILE

- ☐ transmitted by facsimile to the Patent and Trademark Office (703) ____-____.

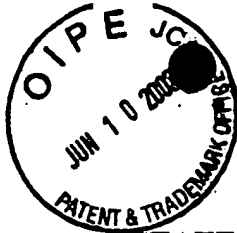

Signature

Date: 6/3/02

Patricia W. Turner

(type or print name of person certifying)

(Submission-Nucleotide and/or Amino Acid Sequence, page 1 of 2)



**STATEMENT THAT "SEQUENCE LISTING"
AND COMPUTER READABLE COPY ARE THE SAME
AND/OR THAT PAPERS SUBMITTED INCLUDES NO NEW MATTER**

3. I hereby state:

All papers accompanying this submission, or for which a request for transfer from applicants' other application, introduce no new matter.

The "Sequence Listing" and computer readable copy are the same.

If any additional extension and/or fee is required, charge Account No. 50-0850.

Tel. No.: (617) 345-6057

Customer No. 26248

SIGNATURE OF PRACTITIONER

David S. Resnick, Reg. No. 34,235

NIXON PEABODY LLP

101 Federal Street

Boston, MA 02110

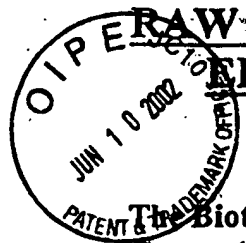
2590

0319

BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/990,879
Source: OIPe
Date Processed by STIC: 3/13/02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>) , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

Raw Sequence Listing Error Summary

01P8

ERROR DETECTED

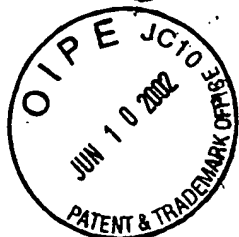
SUGGESTED CORRECTION

SERIAL NUMBER: 09/990,879

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



OIP

Does Not Comply
Corrected Diskette Needed

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,879

DATE: 03/13/2002

TIME: 14:00:15

Input Set : A:\SeqList.txt

Output Set: N:\CRF3\03132002\I990879.raw

→ The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

3 <110> APPLICANT: Engelman, Alan
4 Hofmann, Wolfgang
5 Sodroski, Joseph
6 Lu, Richard
8 <120> TITLE OF INVENTION: EPISOMALLY REPLICATING LENTIVIRAL VECTORS
10 <130> FILE REFERENCE: 700157/50007-C
12 <140> CURRENT APPLICATION NUMBER: 09/990,879
13 <141> CURRENT FILING DATE: 2001-11-21
15 <150> PRIOR APPLICATION NUMBER: PCT/US00/13715
16 <151> PRIOR FILING DATE: 2000-05-19
18 <150> PRIOR APPLICATION NUMBER: 60/136,004
19 <151> PRIOR FILING DATE: 1999-05-26
21 <160> NUMBER OF SEQ ID NOS: 4
23 <170> SOFTWARE: PatentIn version 3.1
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 25
27 <212> TYPE: DNA
C--> 28 <213> ORGANISM: Artificial
W--> 30 <220> FEATURE:
W--> 30 <223> OTHER INFORMATION:
30 <400> SEQUENCE: 1
31 gctttttgcc tgtactgggt ctctc
34 <210> SEQ ID NO: 2
35 <211> LENGTH: 25
36 <212> TYPE: DNA
C--> 37 <213> ORGANISM: Artificial
W--> 39 <220> FEATURE:
W--> 39 <223> OTHER INFORMATION:
39 <400> SEQUENCE: 2
40 caccatccaa aggtcagtg atatc
43 <210> SEQ ID NO: 3
44 <211> LENGTH: 21
45 <212> TYPE: DNA
C--> 46 <213> ORGANISM: Artificial
W--> 48 <220> FEATURE:
W--> 48 <223> OTHER INFORMATION:
48 <400> SEQUENCE: 3
49 ggctaactag ggaacccact g
52 <210> SEQ ID NO: 4
53 <211> LENGTH: 22
54 <212> TYPE: DNA
C--> 55 <213> ORGANISM: Artificial
W--> 57 <220> FEATURE:

→ requires explanation of genetic
source in <223>. See error summary
sheet item 11.

25

25

21

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,879

DATE: 03/13/2002

TIME: 14:00:15

Input Set : A:\SeqList.txt

Output Set: N:\CRF3\03132002\I990879.raw

W--> 57 <223> OTHER INFORMATION:

57 <400> SEQUENCE: 4

58 gtcagtggat atctgatccc tg

22

VERIFICATION SUMMARY

DATE: 03/13/2002

PATENT APPLICATION: US/09/990,879

TIME: 14:00:16

Input Set : A:\SeqList.txt

Output Set: N:\CRF3\03132002\I990879.raw

L:28 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1
L:30 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:30 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:37 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2
L:39 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:39 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:46 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:48 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:48 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:
L:55 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:57 M:258 W: Mandatory Feature missing, <220> FEATURE:
L:57 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: